

2) Sync signal (56) shown in Fig. 1 is a sync signal for taking the synchronization of the frame (corresponding to the "data block" of the present invention). Furthermore, in order to take the synchronization of the block (corresponding to the frame in the present invention), the first two bits, indicated as SECTOR MARK, of the DATA (60) following the SYNC SECTION are used. The SECTOR MARK is used for distinguishing the first frame of the block from other frames. When the two-bit SECTOR MARK is carrying "11", it indicates that the frame is the first frame of the block, and when the same is carrying "10", it indicates that the frame is other than the first frame. In other words, the SYNC SECTION, together with the SECTOR MARK "11", of the frame is used not only for the sync signal of the frame, but also for the sync signal of the block. Thus, in Sako, there is no independent sync data for the block as recited in each of independent claims 13-15, and 19-21.

According to the present invention, frame sync data is provided at the beginning of the frame, and data blocks follow the frame sync data. Block sync data is provided at the beginning of each data block. According to the present invention, the received signal is demodulated according to the frame sync data and the block data. However, in Sako, when the SYNC SECTION of the first frame is detected, this detection is used for both the detection of the first frame and the detection of the block, and any resulting demodulation is not done according to both the frame sync data and the block sync data as recited in claims 13, 16, 19, and 21.

Also, according to the present invention, the frame sync data is provided separately from the block sync data, and there is no information related to the frame sync included in the data block. On the other hand, according to Sako, the SECTOR MARK, which is a piece of information related to the block sync, is included in each frame. According to the present invention, since each data block does not carry any information related to the frame sync, the efficiency of the data block is improved, compared to that of Sako. Also, the frame synchronization can be accomplished with a higher accuracy, because the frame sync data is provided separately and independently from the block sync data.


According to the present invention, the synchronization of the frame, that is the detection of the frame is very important factor for the data decoding. If the frame detection should fail, the data

blocks included in the frame cannot be decoded. The present invention relates to transmission and/or receiving apparatus or methods which are different from the recording method disclosed in Sako. According to the present invention the signal transmitted through the transmission passage, such as air, is subject to the disturbance in the transmission passage, and therefore, the frame sync signals are prepared independently from the block sync signals to enable the detection of the frame sync signal accurately without any failure.

In view of the above remarks, it is submitted that claims 13-21 are not anticipated by Sako, and that the application is in condition for allowance. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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